

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2004/000949

## A. CLASSIFICATION OF SUBJECT MATTER

**IPC7 F16L 21/08**

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16L 21/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

New Patent &amp; Utility Model Search System(KIPO): taper, bolt, wedge, pipe, tube, fix, joint, support

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2001-21076A (Cosmo Industrial Machinery Co. Ltd.) 26 Jan. 2001 Figures 1, 4, 6	1 - 4
X Y	JP 11-325347A (Cosmo Industrial Machinery Co. Ltd.) 26 Nov. 1999 Figures 1, 5, 6	1 - 4
Y	US 5,398,980A (Thomas D. Hunter, et al.) 21 Mar. 1995	1 - 4
Y	JP 51-151230 U (Yano Technical Co. Ltd.) 03 Dec. 1976 Figures 2, 6 - 9	1 - 4
Y	US 4,878,698A (R. Fowler Gilchrist) 07 Nov. 1989	1 - 4

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  17 SEPTEMBER 2004 (17.09.2004)	Date of mailing of the international search report  <b>18 SEPTEMBER 2004 (18.09.2004)</b>
Name and mailing address of the ISA/KR   Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer  LEE, Moon Wook Telephone No. 82-42-481-5420

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.
PCT/KR2004/000949

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP2001-21076A	26.01.2001	None	
JP11-325347A	26.11.1999	None	
JP51-151230U	03.12.1976	None	
US5398980A	21.03.1995	AU675581B2 AU7590994A CA2130777A1 GB2284030A GR1002346B HK1001193A1 JP7190259A US5398980A ZA9406139A	06.02.1997 25.05.1995 17.05.1995 24.05.1995 24.05.1996 29.05.1998 28.07.1995 21.03.1995 15.02.1996
US4878698A	07.11.1989	US4878698A	07.11.1989